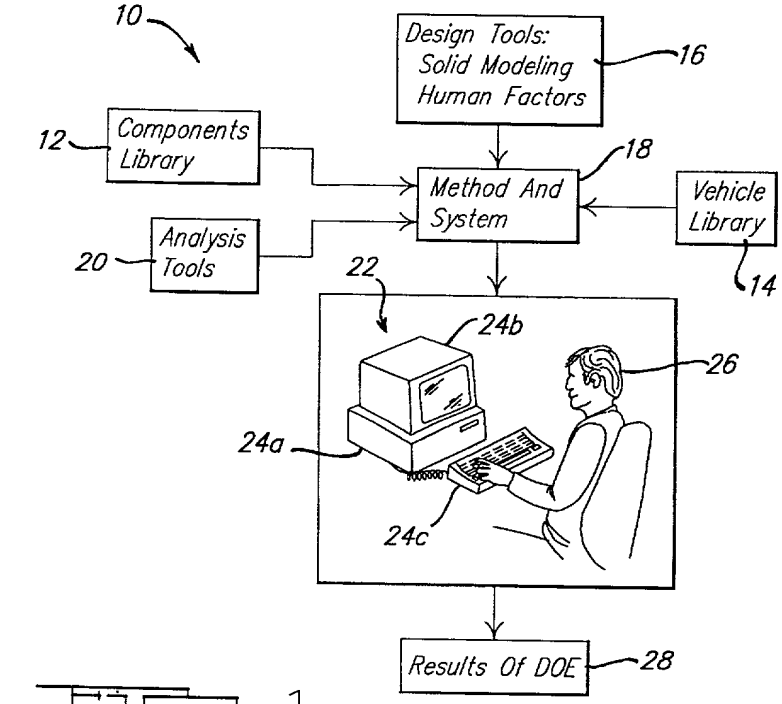
10
Design Tools:
Solid Modeling
Human Factors
16
12
Components
Library
18
Method And
System
Vehicle
Library
14
20
Analysis
Tools
22
24b
26
24a
24c
Results Of DOE
28

Fig. 1.

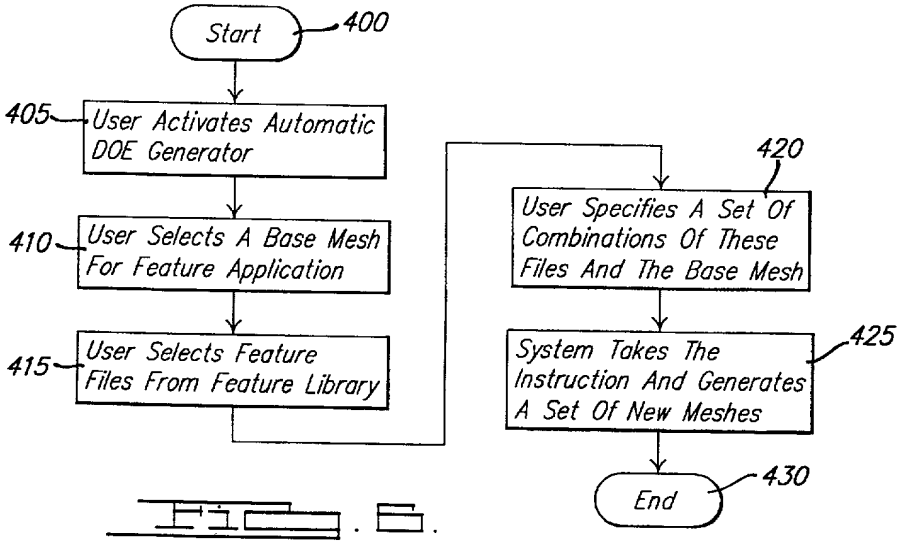
Start
400
405
User Activates Automatic
DOE Generator
410
User Selects A Base Mesh
For Feature Application
415
User Selects Feature
Files From Feature Library
420
User Specifies A Set Of
Combinations Of These
Files And The Base Mesh
425
System Takes The
Instruction And Generates
A Set Of New Meshes
End
430

Fig. 6.

Updated Version

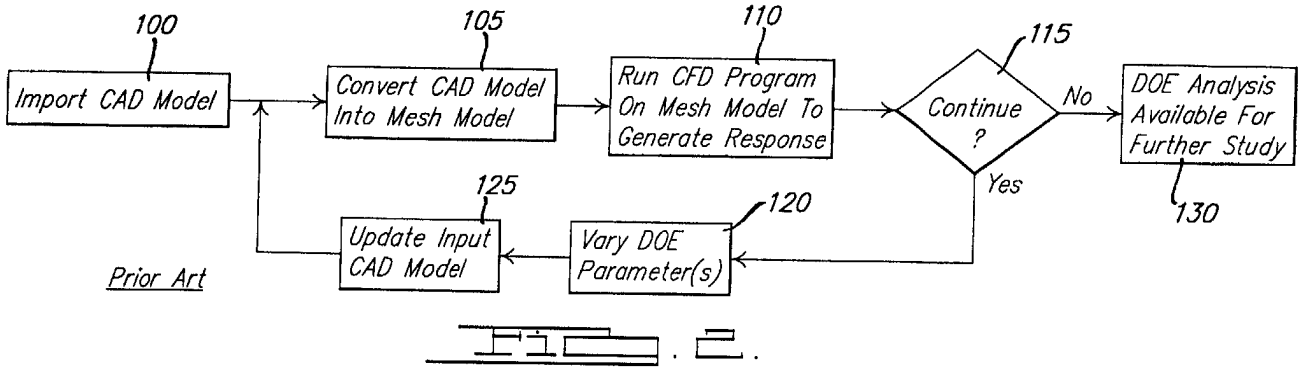

FIG. 2.

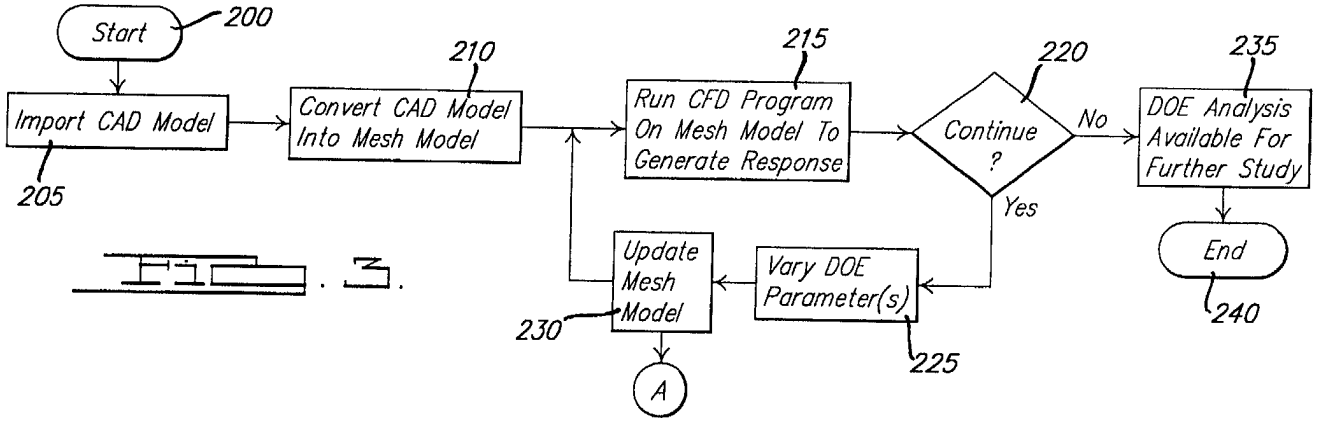

FIG. 3.

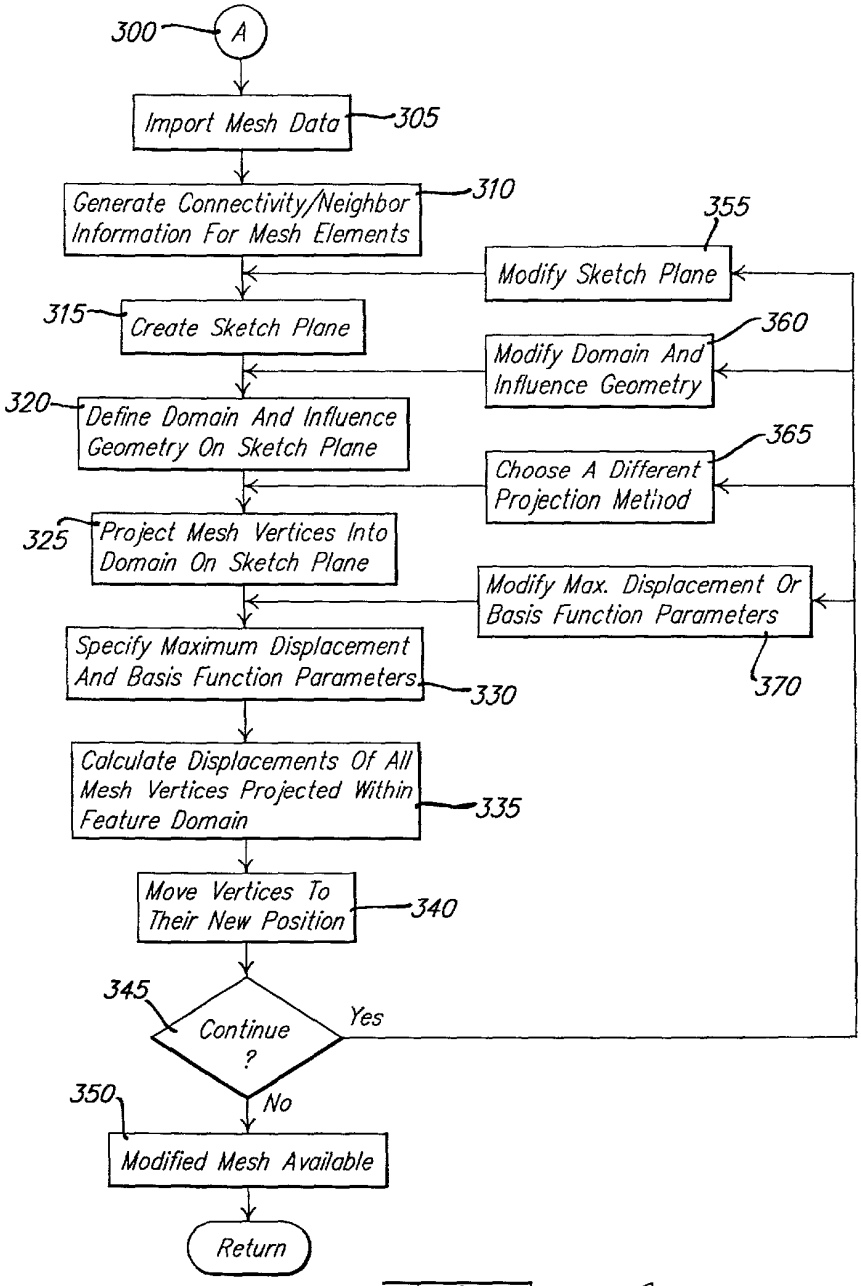
300
A
Import Mesh Data
305
Generate Connectivity/Neighbor Information For Mesh Elements
310
315
Create Sketch Plane
320
Define Domain And Influence Geometry On Sketch Plane
325
Project Mesh Vertices Into Domain On Sketch Plane
Specify Maximum Displacement And Basis Function Parameters
330
Calculate Displacements Of All Mesh Vertices Projected Within Feature Domain
335
Move Vertices To Their New Position
340
345
Continue ?
Yes
No
350
Modified Mesh Available
Return
355
Modify Sketch Plane
360
Modify Domain And Influence Geometry
365
Choose A Different Projection Method
Modify Max. Displacement Or Basis Function Parameters
370

FIG. 4.

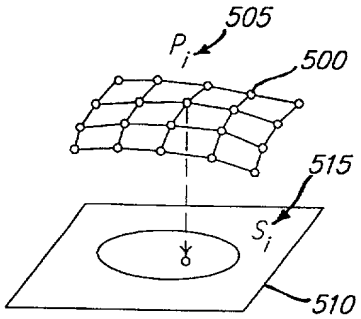

Fig. 5a.

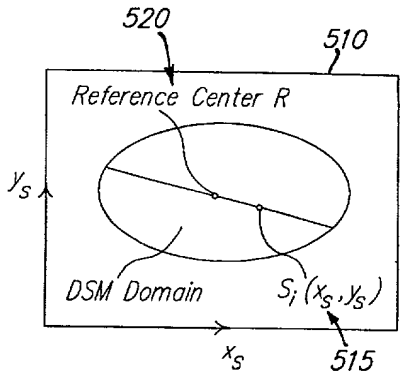

Fig. 5b.

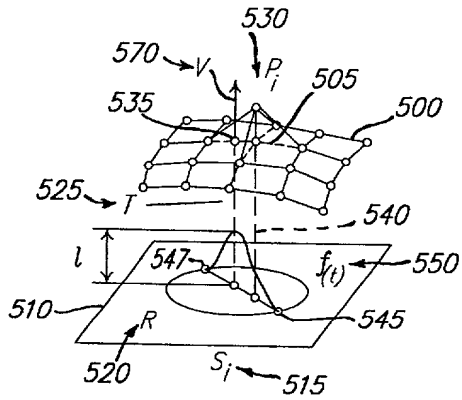

Fig. 5c.

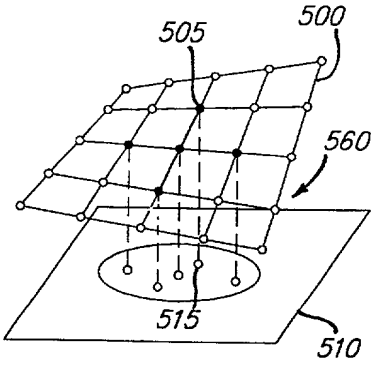

Fig. 5d.

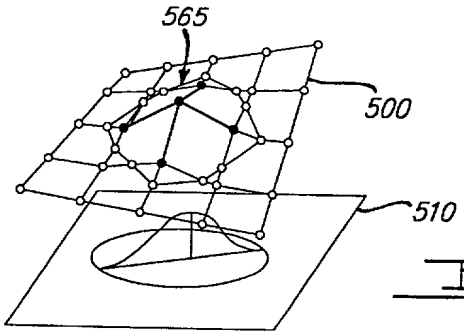

Fig. 5e.